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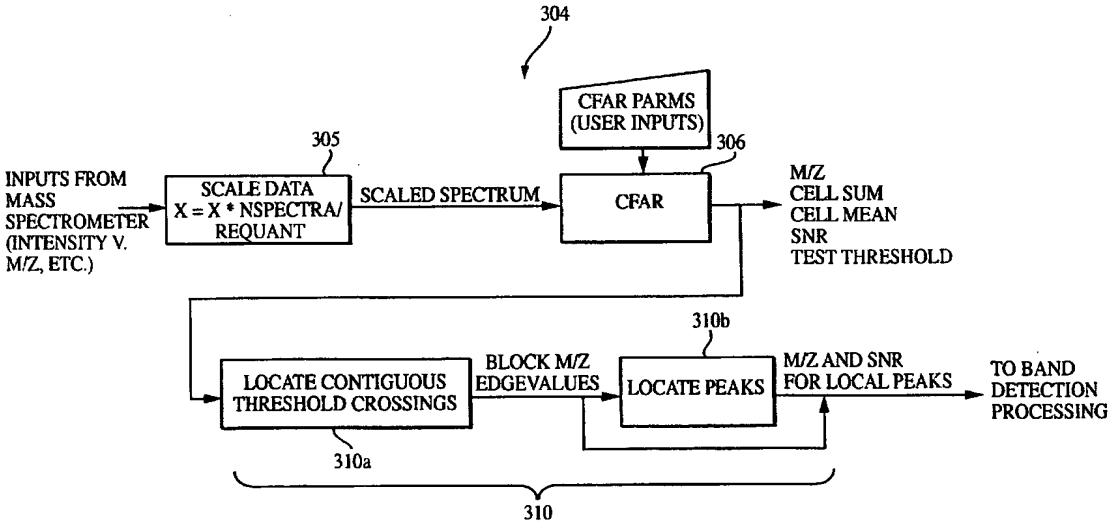
(54) Title: THREAT IDENTIFICATION FOR MASS SPECTROMETER SYSTEM



(57) Abstract: A controller that processes the mass spectrum of a sample provided by a detector of a mass spectrometer, for example, by a field portable mass spectrometer system. The controller provides a constant false alarm rate (CFAR) processing of the mass spectral data received. The CFAR processes the mass spectral data to determine noise included in the mass spectral data and outputs spectral peaks when the mass spectral data exceeds a threshold that reflects the noise included in the spectral data. The output peaks are compared with spectral peaks for known threats stored in a database and a notification that a known threat is present in the sample is provided if there is a correspondence between one or more output spectral peaks and one or more spectral peaks of a known threat as stored in the database.

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